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NOTES ON DARDIC

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I

Intervocalic Dentals in Shina and Kalasha

1. In drawing attention to some of the archaic features of Khowar (*Report on a Linguistic Mission to Afghanistan*, p.71), Dr. Morgenstierne says: "The preservation of *t* as *r* . . . is a very archaic feature, with parallels only, to some extent, in Shina, some Kohistani dialects and Romany."

2. The comparison with Romani is just, particularly if the Syrian dialect is considered, in which also *-t-* appears as *r*, while in the European and Armenian dialects it has become *l*. The comparison with Shina and the Kohistani dialects is very doubtful. This language, like the closely related Kashmiri, presents the usual Indo-Aryan treatment of intervocalic *-t-*, namely its disappearance. This is clear from the following examples[1]:—

3. Guresi dialect *alāu* m. bonfire, *lei* f. torchwood (*ālātam*); *konyi* comb (*kaṅkataḥ*); *gōu* he went (*gatáḥ*); *dī* daughter (*duhitá* or *duhitā*); *pĕi* falls (*pátati*), *bũus* I was (*bhūtáḥ*); *mā* mother (*mātá*); *bā* willow (*vetasáḥ*); Kohistani dialect *śyō* white (*śvetáḥ*); *sau*, Sinh. *sēū* bridge (*sétuḥ*); *haī* attack (*hatíḥ*); *to* then (*tátaḥ*); *ṣā* brother (*bhrātā*); *śīĉi* sheds (*śātáyati*); *śal* fever (*śītalaḥ*); *cār* 4 (cf. *catúraḥ*); *condăi* 14 (*cáturdaśa*); 3rd sing. future in *-ĕi* (*-ati*).

4. The case of *-ṛt-* is ambiguous. The consonant of this group in Indo-Aryan, has, according to dialect, either the dental or the cerebral development, becoming *a/it* or *a/iṭ*. But in Shina *-t-* disappears equally with *-ṭ-* (Turner: *Beiträge zur Literaturwissenschaft und Geistesgeschichte Indiens*, p. 41); and since the group *rt* appears to be cerebralized in Shina (e.g. *kāṭĕi*, spins, beside Sinh. *kaṭī*, but generally *katt-* or *kāt-*), it is possible that *-ṛt-* had a similar development. In this case words like *mũu* dead (*mṛtáḥ*), *gi* ghee (*ghṛtám*) may have had the evolution: *mṛtá-* > *muḍa-*, etc. This would agree with the regular cerebralization of the group *ṛ* + dental in the language of the Shahbazgarhi Inscription of Aśoka.

5. *-d-*: *pā* foot (*pādaḥ*); *payōn* foot of bed (*pādāntaḥ*); *mĩ* f. (*máddaḥ*); *roĕi* weeps (*ródati*; but cf. Rom. *rovel* < *rávati*); *ūar*

[1] The Shina words quoted are taken from Dr. Grahame Bailey's *Shina* and Lt.-Col. Lorimer's articles in *JRAS.* and *Bulletin S.O.S.*

belly (*udáram*); *khāi* eats (*khādati*); *ayá* of this kind (cf. *tādṛśaḥ*); *vāi* water (? *udakám*); *ūyānŭ* hungry (*udanyúḥ*); *cōi* (*tráyodaśa*, cf. Shahbazgarhi *todaśa*: the origin of *-r-* in Pali *terasa*, etc., is doubtful).

With possible Middle Indian *-d-*: *hīŭ* heart (*hṛdayam*); *bā* (*dvādaśa*; but cf. Shahbazgarhi *badaya* with a dental opposed to Kal. *duvāḍasa* with a cerebral).

6. The fate of the aspirates is the same: *-th-*:—*gāĕ* song (*gātha*); *mail* buttermilk (*mathitám*); *pumūo* first (*prathamáḥ*); *šărgū* [illegible] (*-gūtha-* ?).

With possible M.I. *-ṭh-*:—*kāyĕi* boils, tr. (*kvathate*; cf. Pali *kaṭhito*).

-dh-:—*gum* wheat (*godhúmaḥ*); *mōru* sweet (*madhuraḥ*); Kal. *mo* wine (*mádhu*).

7. The only one of these intervocalic dentals which presents certain apparent exceptions is *-t-*.

The past participle is formed in various ways. Of these forms like *gōu* (*gatáḥ*), *mŭu* (*mṛtáḥ*), *bŭu* (*bhūtáḥ*), show the regular development of *-t-*. Others ending in *-ṭu*, *-tu*, *-du*, *-ku* go back to Middle Indian consonant groups derived from *ṣṭ*, *kt*, *tt*, *pt*; *gdh*, *ddh*, *bdh*; *kt*, *ks*, *ṣk* (either directly or by analogical extension), and are paralleled in the north-western languages of India proper—Sindhi, Lahnda and Panjabi.

8. A third important class, however, ends in *-lu* or *-ĭlu*. These sometimes exist side by side with other forms: e.g. *bŭlŭs* and [illegible]. There can be little doubt that they are extensions of the past participle in *-ta-* with the Middle Indian suffix *-illa-*, and are strictly comparable with similar past participle forms in Marathi, Gujarati, Bihari, Oriya and Bengali, in which there is no doubt as to the fate of *-t-* (cf. Bloch, *La Langue marathe*, p. 256). There is therefore no question of the survival of *-t-* as *-l-* in these forms.

9. There is, however, one word in which *l* certainly, and a few others in which it possibly, corresponds to Sanskrit *-t-*:—*śal* 100 (*śatám*; *gāl* f. wound, appears to belong to Skt. *ghātiḥ*; *jŭl* m. *lel* m. blood, and *lel* visible, may be participial forms from *jīvitá-* and *lokita-* respectively of the type of *mail* (*mathitám*) already discussed with M.I. suffix *-illa-*. *ćalō* m., lighted torch, may be connected with Skt. *kṣātiḥ*; *unīlį* (in *unīlį mā* wet-nurse), which it is at first tempting to derive directly from Skt. *unnetṛ-*, appears to be an adjective used also in the masculine: *unīlŭ mālų* foster-father), and there is

suspect of containing the adjectival suffix *-illa-*, and to be a derivative of the verb *unīći* rears (*unnayati*: cf. *Kharoṣṭhī Inscriptions*, ed. Rapson, Senart and Boyer, *passim*, where *kuḍaja unidaja* seems to be used in the sense of "adopted son" [1]).

10. It is impossible to see any difference of condition which in these words might lead to a different development of *-t-*: cf. e.g. *gōu* = *gatáḥ* beside *śal* = *śatám*. If, therefore, in any of these words *-l-* is descended from *-t-*, the word in which it occurs must have been borrowed from another dialect, in which that change was regular. The word in which *-l-* most certainly represents *-t-*, *śal*, is one particularly susceptible of borrowing (cf., e.g., the remark of Leitner in his *Languages and Races of Dardistan*, vol. i, p. 8: "It is difficult for these races to realize anything above a hundred and sometimes above twenty." Further, a number of West Pahari dialects, which normally retain initial *ś-*, have a word for "100" beginning with the dental *s-*, evidently borrowed from the Plains).

11. But from what language are the Shina words with *l* < *-t-* borrowed? One would be tempted to see in *śal* the effect of Pashto *sal* on a native **śau*, were it not that the influence of Pashto on Shina is otherwise negligible.

12. May we suppose that in the neighbouring Khowar (which, we [illegible], now has *r* for *-t-*) the evolution was from *-t-* through *-d-* to *-l-*, and then to *-r-*? Against that we find original *-l-* still preserved unchanged (e.g. *kapāl* head, cf. *kapálam*, and *paźāl* shepherd < *paśupālaḥ*).

13. We have seen above that of the Romani dialects one represents *-t-* by *r* as in Khowar, the others by *l*. Is there a Hindu Kush dialect which also keeps *-t-* as *l*? I think it is to be found in Kalasha, the south-west neighbour of Khowar. Unfortunately our knowledge of the language is very small, being confined to the words and specimens given in the *Linguistic Survey of India*, viii, 2, and in the monographs of Leitner, on which they are based. Nevertheless, there seem to be a number of words in which *l* or *u* corresponds to Skt. *-t-*. I suggest that either the *l* was in process of becoming *u* and had perhaps become in certain conditions, or was a velar *l*, which the observer heard as *u*. The most cogent proof of this is that in at least three words original *-l-* is represented by *u* or *o*. There can be no doubt as to the identity of *kao* year, with Garvi *kālā* years, Maiya *kāla*, Shina *kāl*: Skt. *kālāḥ*. Similarly *ango* finger (*aṅgúliḥ*), *teue* oil (*tailám*).

[1] Suggested to me by Mr. P. S. Noble of St. John's College, Cambridge.

14. For *-t-*, we have the 3rd sing. present or future (Skt. *-ati*): *dali* gives (cf. Pali *deti*), *jagal* sees, *tiel* beats, *sapral* finds (**saṁpaṭati* ? cf. Skt. *sáṁpatati*). Only *dali* ends in *-i*, which can scarcely be derived from Skt. *-i* of *-ati*; a similar sporadic *-i* appears in the 3rd plural, and, as we shall see, regularly in the 2nd plural of the past tense (with this perhaps may be compared the *-i* endings of Syrian and Asiatic Romani, and of the 3rd plural of the Sindhi present). The majority of the forms end in *-u*: *šiu* there is (*śéte*), *oneu* brings (*ánayati*), *iu* comes (*éti*), *pareu* goes (*páraiti*), *piu* drinks (*píbati*), *kāreu* does (*kārāyati*), *cišṭeu* stands (*tíṣṭhati*). *niseu* sits (*níṣīdati* ?); cf. also *žū* eats, *sangāu* hears (cf. Armenian Romani *sənkh-* id.), *āsōv* is (*ásate* ?).

15. There is some reason (notably the preservation of the augment, which is discussed below) for supposing that the past tense of Kalasha rests not upon the past participle, but on the old imperfect or aorist. If that is so, the 3rd singular which is given in every case except one—*sangyes* he heard—as ending in *-o* or *-u*, must rest either upon the middle endings of Sanskrit *-ata*, which is not likely, or have acquired its ending from the present. This last is not improbable, for the complete disappearance of the final *-t* would leave the 3rd person undifferentiated from the 1st and 2nd persons. On the other hand, the 2nd plural, which in every case is given as ending in *-li*, seems to represent Skt. *-ta* (with an additional vowel element), and thus provides a contrast to the treatment of *-th-*, which in the 2nd plur. present disappears. Thus :—

Present	Past
ona < *ánayatha*	*oṇili* < *ánayata*
para < *páretha*	*parāli* < **parāyata*, cf. *páraiṭa*
pīa < *píbatha*	*awīli* < *ápibata*
kāra < *kārāyatha*	*ārili* < *ákārayata*
cišṭa < *tiṣṭhatha*	*aciṣṭili* < *átiṣṭhata*
žūa	*āšili* < **āśata*
eov, cf. *ithá*	*āli* < **āyata*, cf. *áita*
niseov, cf. *niṣīdatha*	*nisāli* < *nyásadata*

In this case the *-li* preceding the palatal vowel *-i* (whatever its origin) is preserved unchanged as in the case of *dali*, and (two more words (of unknown etymology) *kāli* cheeks, *pralik* light.

16. The past participles quoted in L.S.I. (ib., p. 73) are from [illegible] with M.I. *-tt-* (*kerdīta*: cf. Panj. *dittā*) or *-nn-* (*luina*, [illegible]). *Saprek* is difficult; is it an infinitive? But *thāulo* (if [illegible]

a different development of initial *sth-* from medial *-sth-*—cf. *kāst* hand < *hástaḥ*, *broćšṭona* from the top < *bárhiṣṭha-*—as in European Romani in which *-sth-* remains, but *sth-* becomes *th-*) would represent *sthāpitá-*. In the Vocabulary (*L.S.I.*, viii, 2, p. 128) appears *gālah*, gone, which may be Skt. *gatáḥ*.

17. Even more striking is the declension of *chū* daughter, although, if correctly observed by Leitner, the relation of its initial with that of Khowar *žūr* < Skt. *duhitá* (cf. Morgenstierne, op. cit., p. 71) is not clear. The singular is *chū* (< **chuu*, **chul-* ?): the plural *chūlai*. Finally we have *harilek* green, and perhaps *harila* brass: Skt. *haritá-*.

18. The fate of *-d-* is less clear. Perhaps it was lost.[1] There are several forms quoted of the verb *nisik*, to sit, (if this despite its dental *s* is to be referred to *níṣīdati* or *niṣadati*: see below) without any trace of *l* or *u*. Similarly *prah* I gave (see § 28) may be Skt. *prádadām* or *prádām*. In *héra* heart (*hṛdayam*) *r* represents *d*, cerebralized from *d*. This seems to be the regular development of M.I. *-r-*: e.g. *mrakro* monkey (*markaṭakaḥ*), *saprel* (cf. Pkt. *saṁpaḍai*). Cf. also what was said above of the cerebralization of the group *r* + dental in Shina.

19. The only example of *-th-* is the termination *-atha* of the 2nd plural, where as shown above it disappears. But *-th-*, especially in a termination (Turner, *JRAS.*, 1927), may have a different fate from *-t-*. Such an assumption would explain the ending of the 2nd plural in *-li*, which is given in all the forms except *eov* and *niseov*. Perhaps this is the development of Armenian Romani in *mihil* buttermilk (*mathitám*: though this may be a case of dissimilation), and of European Romani in the termination of the 2nd plural *-en* < *-athana*.

20. The only instance of *-dh-* is *mahora* sweet (*madhuraḥ*). The balance of evidence is in favour of a similar loss in Romani[1]; and we know that this sound was one of the first to lose its occlusion, appearing even in the Rigveda in certain words and terminations [illegible].

21. This explanation leaves on one side the two exceptional forms of the 2nd plural: *eov* you go, *niseov* you sit.

22. The hardest word to explain is *biši* 20. Khowar *bišir* [illegible] goes back to a form **vīšatiḥ* (cf. Skt. *viṁśatiḥ*), but Shina *bī*, [illegible] majority of the other Indo-Aryan forms go back to an earlier **vīsa*; cf. Pali *vīsaṁ* formed after *tīsaṁ*. In that case *-i* would not [illegible] to the original word.

[1] [illegible] in Khowar, according to a communication from Dr. Morgenstierne.

23. The evidence that *-t-* became *-l-* in Kalasha is thus seen to be fairly strong; and we may imagine that Kalasha, now restricted to a very small area and separated from the Shins by Khowar, may at one time have had a wider extension.

24. There can be little doubt that the Gypsies, although the oldest sound-changes of their language show that originally it belonged to the same group as the modern Central languages (Turner, *Journ. Gypsy Lore Soc.*, New Series, ix. 4), were associated at an early period with the ancestors of the north-west languages. Is it, then, mere coincidence that we find two groups, both in Dardic and in Romani, one characterized by the change of *-t-* to *l*, the other by its change to *r*?

II

Survival of the Sanskrit Augment

25. On p. 71 of his *Report* Dr. Morgenstierne draws attention to the very interesting fact that in Khowar "possibly traces of the augment are preserved in some irregular verbs: e.g. *bōm* I can: *obetam* I could; *brium* I die: *obritai* he died: *nēim* I take out: *onēitam* I took out; *šer* it is (< *śete*): *ošoi* it was (< *aśayat*); *žibom* I eat: *oyotam* I ate".

26. In India proper and in Ceylon the augmented tenses soon disappeared. Pali has the aorist and Prakrit traces of the imperfect; but both quickly gave way to the nominal construction, and their place was taken by the past participle (see J. Bloch, *La Phrase nominale en Sanskrit*). If the augment was to survive, it could only be in a language which preserved one of the augmented tenses, aorist or imperfect. The imperfect (of *bhū-*) and the aorist both occur in the Inscriptions of Aśoka; but it is noteworthy that except for the otherwise monosyllabic *aho* (cf. the preservation of dissyllabic augmented forms in Armenian, and the absence in Homeric Greek of augmentless forms of otherwise monosyllabic past tenses such as ἔσχον) the only augmented forms occur in the Girnar and Shahbazgarhi recensions. In the Khowar examples quoted above the only one which directly represents one of these tenses is *ošoi* < *aśayat*. In the others some element, perhaps an auxiliary verb, has been added to the form of the verb. This form cannot be the past participle in *-ta-* (as in the majority of Indo-Aryan languages) which ends in *-ir*, and is found in the compound tense, e.g. *yaniru ošoi* he had taken. We may reasonably suppose that it was added to the old imperfect (or aorist): just as, e.g., in Gujarati the present auxiliary *chā*, etc., has been added to the old present to form the new present tense. This process was doubtless encouraged by the fact that the endings of the imperfect did not remain easily distinguishable owing to the loss of final consonants (in distinction to the present in which the consonants protected by following vowels partially survived).

27. Even in the case of *ošoi* the element *-ta-* has been added in the 1st singular and the 1st and 2nd plural:—

oštam	*oštam*
ošō	*oštami*
ošoi	*ošoni*

Of the forms without *-ta-*, *ošō* may be derived from *aśayaḥ*. In *ošoi* from *aśayat* the final *-i* is probably a later addition, and is perhaps parallel with the *-i* found in Kalasha 3rd singular and plural of the present, and again in the 3rd plural present and past of Khowar (e.g. *ganini* they take). The 3rd plural *ošoni* cannot represent *aśayan*, but presumably owes its ending to the present.

28. This survival of the augment has a striking parallel in the neighbouring Kalasha. The L.S.I. contains the following forms:—

šiu there is (*śéte*)	*ašis* there was (*aśayat*)
pīm I drink (*pibāmi*)	*awis* (Leitner) *apis* (L.S.I.) I drank (*ápibam*)
kārem I do (*kārāyāmi* or *karómi*)	*āris* I did (*ákārayam* or *ákaravam* or *ákaram*)
bām I shall be (*bhávāmi*)	*hāwis* I became (*ábhavam*)
cišṭim I stand (*tiṣṭhāmi*)	*aciṣṭis* I stood (*átiṣṭham*)
	aphūco he asked (*ápṛcchat*)
im I come (*émi*)	*ah* I came (*áyam*)
Cf. *parim* I go (*páraimi*)	*parah* I went (*párāyam*)

Some presents have pasts from different roots or compounded roots:

jagem I see	*āwešu* he saw (*ápaśyat*)
žum I eat	*āšis* I ate (**āśam*, cf. aor. subj. *āšīt*)
dēm I give (cf. Pali *demi*)	*prah* I gave (*prádadām* or *prádām*)

Some of the past tenses of uncertain etymology also show initial *a-*: *asǐjo* he entreated, *ayisto* it left, *awōjo* he said (but cf. *awōjena* having said ?).

29. In the verb *nisim*, I sit, dental *s* is unexpected (instead of *š*) if it is derived from *niṣīdati* or *níṣadati* (cf. Khowar *nišik*). It is due to the influence of the past *nisā* I sat < *nyásadam* (i.e. *niyásadam*).

30. In a compound verb beginning with *ā* the augment is concealed as in Sanskrit: *ōnim* I bring (*ānayāmi*); *ōnis* I brought (*ānayam*). Forms like this may have encouraged the loss of the augment evidenced by some pasts: *jagis* I saw, *tripau* it burnt, *bandau* he ordered, *kupau* he collected (? < **kṛṇā-* beside Skt. *kiráti*, cf. Gk. *κεράννυμι*, *κίρνημι*), *śurūis* it fell (? **śaḍ-*: Hindi *saṛnā*: cf. Skt. *áśadat*), *sangāes* he heard, *sawājau* he kissed, *umbulau* he prophesied.

31. In the majority of cases cited above, the consonant after the augment has its phonetic development: e.g. *āris* < *ákaravam*, *awis* < *ápibam*, *āwešu* < *ápaśyat*, *hāwis* < **ahaw-* < *ábhavam*, *aphūco* < **aprucch-* (cf. Kharoṣṭhī Inscriptions *prichati*) < *apṛcchat*. In some cases the influence of the present has re-established the consonant: e.g. *acišṭis* after the present *cišṭim*. This may be the explanation of the form *apis* (past to *pīm* I drink) given in L.S.I. instead of Leitner's phonetically correct *awis*; and for the past of *bām* in the new sense, *abayeni* they could, beside the form of the past in the older sense, *hāwis* I became.

32. The derivation of the past tense in Kalasha from the Sanskrit imperfect or aorist is strengthened by a further consideration. It has been pointed out that the majority of modern Indo-Aryan languages form their past tense and their past participle from the same stem, namely that of the past participle of Sanskrit. All the more striking, therefore, is the opposition offered by Kalasha between the past tense and the past participle of the verb to go: the former is, as we have seen, *parah* I went (*párāyam*), the latter *gūlah* gone (*gatáḥ*). A similar opposition is seen in the verb "to give": *prau* he gave (*prádāt*) but *dīta* given (if in *ker(e) dīta*, cut, this represents **ditta-*, cf. Panj. *dittā*).

33. The conjugation of the present in Kalasha (with the exception of the 1st plural, which has been altered by the addition of a suffix *-k*, perhaps to avoid confusion with the 1st singular) is derivable directly from the Sanskrit:—

Skt.	Kal.
píbāmi	*pīm*
píbasi	*pīs*
píbati	*pīu*
píbāmaḥ	[*pīk*]
píbatha	*pīa*
píbanti	*pīn*

34. The imperfect, as has been suggested for Khowar, is more liable

to alteration and reformation owing to the loss of its final consonants. Where the consonants were protected, namely in the 1st and 2nd plural, the old forms are kept (with the addition of *-i*):—

Skt.	Phonetic development.	Kal.
ápibam	**awī*	*awis*
ápibaḥ	*awī*	*awī*
ápibat	**awī*	*awis* (Leitner) *apiau* (L.S.I.)
ápibāma	**awīm*	*awimi*
ápibata	**awīl*	*awi* (Leitner) *apīli* (L.S.I.)
ápiban	**awī(˜)*	*aun* „ *apīan* „

The 1st singular is distinguished from the 2nd and 3rd singular by the addition of *-s* (of unknown origin: perhaps an auxiliary; cf. Khowar 1st singular *oštam* beside 3rd singular *ošoi*). Some 1st persons singular are given without *-s*: *ah* I came, *parah* I went, *prah* I gave, *nisā* I sat.

The 2nd singular phonetically represents the Sanskrit.

In the 3rd singular the form given by Leitner agrees with one form only given in the L.S.I., namely *sangāyes* he heard: all the other past tenses in the 3rd singular both in Leitner and in the L.S.I. end either in *-u* or *-o*. I have suggested above that this is the ending of the present imported into the past to distinguish the 3rd singular from the 2nd singular.

The 1st and 2nd plural phonetically represent the Sanskrit, with the addition of *-i*.

The 3rd plural also appears to have the ending of the present, to distinguish it from the original 1st, 2nd, and 3rd singular.